

Create a Project in Eclipse IDE:-

#. Go to File> New>Other>Expand Java Folder> Select Java Project > Click on Next button >Enter the Java Project Name> Click Finish.

Create Java Package:-

#. Go to java project>Right Click to src folder>New>package> enter package name>click finish.

Note:-

#. if java package color is white, means package is empty.
#. if java package color is brown , means package is not empty.

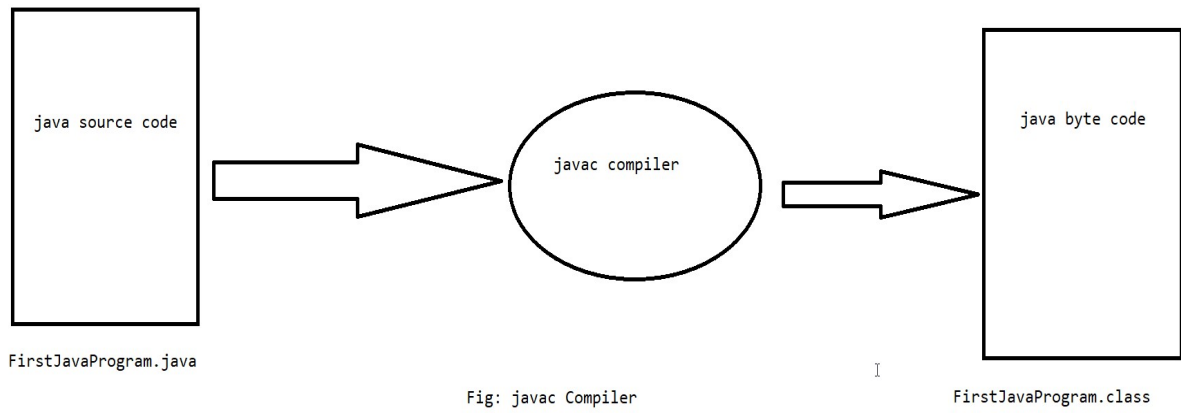
Create Java Class:-

#. Right Click on package>New>class>Enter Class Name > Select main method > Click Finish.

#. JDK : Java Development Kit

#. JRE : Java Runtime Environment

#. JVM : Java Virtual Machine



Analyzing 'FirstJavaProgram; .

package : keyword
javapackage : name of the package
semicolon(;) : Completion of Statement
public : keyword
class : keyword
FirstJavaProgram : class Name
{ } : body
static : keyword
void : keyword/ return type
main() : method name
String : class
System : class
out : out is a PrintStream object.
println():- method name

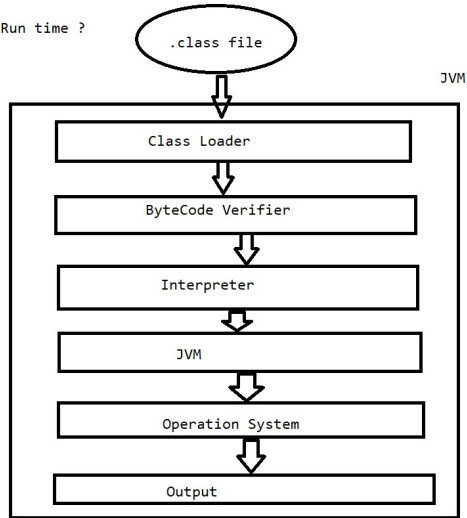
Note:-

- #. We need main() method to run our program.
- #. Java Program will execute from top to bottom order.

Q. What happens at Compile Time?

- #. Source Code > Compiler > byteCode

What Happen at the Run time ?



#. class Loader : It used to load the class file.

Bytecode Verifier : It is used to verify the code.

#. Interpreter : It is used to provide instructions for execution each line of code.

#. JVM : Will act as an intermediate between Interpreter and the Operating System (OS).

#. OS : Actually Operating System will execute the program.

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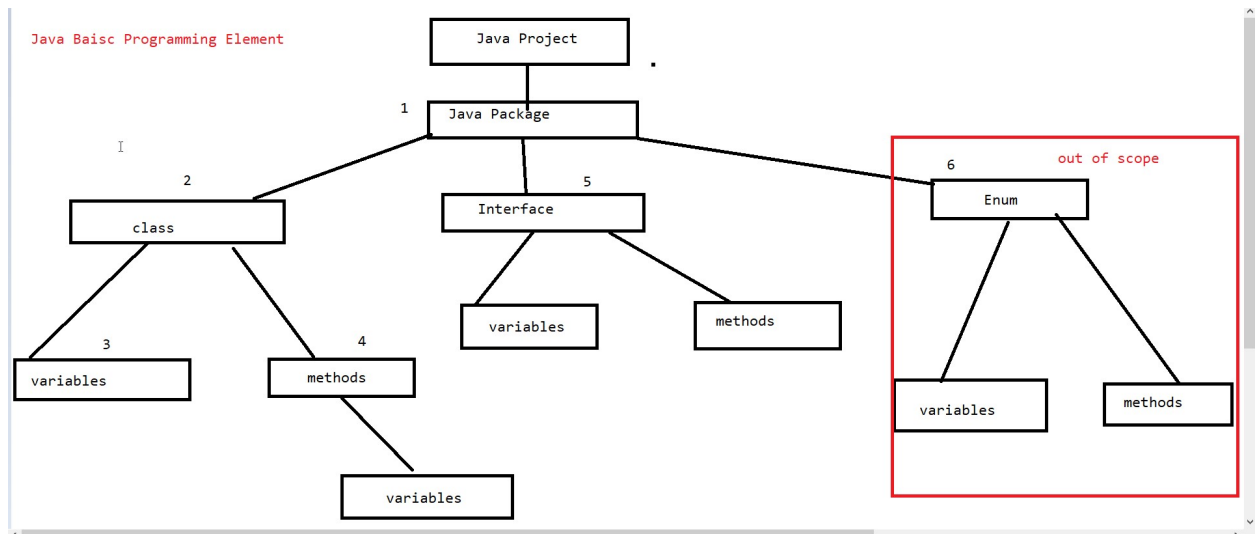
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Java Basic Elements:-

1. package : It is a java folder used to group classes, interfaces and enum.
2. class, interface and Enum: All these three are java files used to group java logic.
3. variable : It is a named memory location used to store data such as number , characters, string etc.
4. method : it is a sub block of a class used to implement logic of an operations.

Essential Statements of Java Program:-

#. To develop, compile, execute and print output, every java program must have the below statements:-

1. class block : Because only class allows us to define method with logic.
2. main method() : Because it is the initial point of class logic execution.
3. System.out.println() : Because in java all kind of data is printed by using this statement.

Naming Convention:

- #. package name should be start with lowercase. it is not mandatory but recommended.
- #. Class, Interface, Enum name should start with uppercase. it is not mandatory but recommended.
- #. method name should always start with lowercase. it is not mandatory but recommended.

Tools & Technologies:-

- #. JIRA
- #. GitHub
- #. Java
- #. Eclipse IDE
- #. Selenium
- #. Maven
- #. Apache POI
- #. TestNG
- #. Cucumber
- #. Auto IT
- #. SQL (MySQL)
- #. Reporting Mechanism (TestNG,Extent)
- #. Log4j
- #. Jenkins (Continous Integration Tool)
- #. API Testing

